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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/671,758

09/26/2003

Jean-Laurent Pradel

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31684

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05/28/2009

ARKEMA INC.

PATENT DEPARTMENT - 26TH FLOOR

2000 MARKET STREET

PHILADELPHIA, PA 19103-3222

EXAMINER

PATTERSON, MARC A

ART UNIT

PAPER NUMBER

1794

MAIL DATE

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05/28/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/671,758	<b>Applicant(s)</b> PRADEL ET AL.	
	<b>Examiner</b> MARC A. PATTERSON	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on 3/9/09.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-10 and 12-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-10 and 12-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Specification***

1. The amendment filed March 9, 2009 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: The phrase 'between 0.863 and 0.902' does not appear in the original specification.

Applicant is required to cancel the new matter in the reply to this Office Action.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 6 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The phrase 'between 0.863 and 0.902' does not appear in the original specification.

***Claim Rejections – 35 USC § 103(a)***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3 - 10 and 12 - 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robert et al (European Patent No. 1136536). U.S. Patent No. 6,528,587 B2 is used for translation.

With regard to Claims 1, 5, and 12 - 15, Robert et al disclose a coextrusion tie (coextrusion binder; column 1, lines 7 - 9) which comprises 5 to 35% by weight of a polymer itself composed of a blend of 80 to 20% by weight of a metallocene polyethylene with a density of between 0.863 and 0.915 g/cm<sup>3</sup> and 20 to 80% by weight of a non - metallocene LLDPE polyethylene, the blend of polymers being cografted by a carboxylic acid, the content of the grafting monomer in the blend being between 600 and 5,000 ppm, and 95 to 65% by weight of a polyethylene, the total therefore forming 100%, the blend of the polymers being such that its melt flow index is between 1 and 13 g/10 min; the non - metallocene polyethylene has a density of 0.900 g/cm<sup>3</sup> (column 3, lines 7 - 9); the polyethylene is a metallocene polymer (column 4, lines 33 - 34) having a density of 0.863 and 0.915 g/cm<sup>3</sup> (column 4, lines 52 - 55) and is a copolymer of ethylene with a comonomer having 4 carbon atoms (column 2, lines 33 - 36). With regard to Claims 1 - 2, 5, and 12 - 14, Robert fails to disclose a polyethylene homopolymer having a melt flow index of between 3 and 15 g/10 min and a polyethylene density between 0.863 and 0.902. However, Robert discloses a melt flow index of the polyethylene homopolymer

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which is selected to produce a blend having a melt flow index of between 0.1 and 10 g/min (the blend has a melt flow index of between 0.1 and 10 g/min; column 1, lines 51 - 52). Therefore, one of ordinary skill in the art would have recognized the utility of varying the melt flow rate of the metallocene polyethylene homopolymer and the blend without the polyethylene homopolymer to obtain the desired melt flow rate of the blend. Therefore, the melt flow rate of the blend would be readily determined by through routine optimization of the melt flow rate of the metallocene polyethylene homopolymer and the blend without the polyethylene homopolymer by one having ordinary skill in the art depending on the desired use of the end product as taught by Robert et al.

It therefore would be obvious for one of ordinary skill in the art to vary the melt flow rate of the metallocene polyethylene homopolymer, thus determining whether the blend has an increase in adhesive strength of 5 to 50% after 8 days, in order to obtain the desired melt flow rate of the blend, since the melt flow rate of the blend would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end result as shown by Robert et al. It also would have been obvious for one of ordinary skill in the art to select a desired density, through routine optimization, depending on the desired density of the end product. The polyethylene is a metallocene polymer, as stated above, therefore the adhesive strength of the coextrusion tie is increased by 5 to 50% between the time  $t=0$  corresponding to its application immediately after its extrusion and the time  $t=8$  days.

With regard to Claim 3, Robert et al disclose a grafting monomer comprising maleic anhydride (column 3, lines 14 - 19).

With regard to Claim 4, Robert et al disclose the interchangeable use of metallocene and ethylene alkyl methacrylate copolymer (column 4, lines 26 - 34) and therefore disclose a tie which additionally comprises ethylene / alkyl methacrylate copolymer.

With regard to Claims 6 - 8, Robert discloses a structure comprising the tie directly between a layer of ethylene vinyl alcohol and a layer of polyester (column 2, lines 7 - 18).

With regard to Claims 9 - 10, the structure disclosed by Robert et al is comprised in a container (fuel tank; column 4, lines 65 - 67), therefore a structure.

#### ANSWERS TO APPLICANT'S ARGUMENTS

6. Applicant's arguments regarding the 35 U.S.C. 103(a) rejection of Claims 1, 3 – 10 and 12 – 15 as being unpatentable over Robert et al (European Patent No. 1136536), of record in the previous Action, have been carefully considered but have not been found to be persuasive for the reasons set forth below.

Applicant argues, on page 6 of the remarks dated March 9, 2009, that Roberts fails to disclose a density from 0.863 to 0.902.

However, as stated above, the phrase 'between 0.863 and 0.902' does not appear in the original specification. The amendment therefore constitutes new matter. However, the new matter is considered in the new rejection above.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc A Patterson whose telephone number is 571-272-1497. The examiner can normally be reached on Mon - Fri 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Marc A Patterson/  
Primary Examiner, Art Unit 1794

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